

April 2009 Monthly Report

During April project plans and schedules were finalized and technical development was moving forward.

Integrated shape files.

We developed and integrated software to read shape files. This is important in that this enables the GTAS client to grab GIS files from various sources. These files enable the GTAS client to store and display map data such as streets, hospitals, bridges, schools and other state and local government infrastructure that may be of strategic significance to emergency preparedness and mitigation.

Development and integration of AWIPS localizations for each WFO participating in the GTAS Pilot.

In AWIPS each NWS WFO has “localizations” that include northern hemisphere, CONUS, regional, state and WFO scales for map and data displays that are specific to their County Warning Area. However, AWIPS does not have a requirement to have more detailed map backgrounds that GTAS requires for geo-targeting down to the neighborhood scale. This is part of the pilot – to generate new requirements and capabilities for AWIPS II. In April we have implemented the metropolitan/neighborhood scales for the GTAS client as shown on next page.

Development of Progressive Disclosure

Progressive disclosure refers to the ability to view more detailed data as the user zooms in. Much like Google Earth, an emergency manager can view more map and higher resolution toxic plume data as they zoom in. Zooming in on the display is done by clicking on the middle mouse button. Likewise, clicking on the left mouse button zooms out. Displaying the full resolution of the data on all scales would make the display unreadable.

New Menu Structure of initiating a toxic plume display.

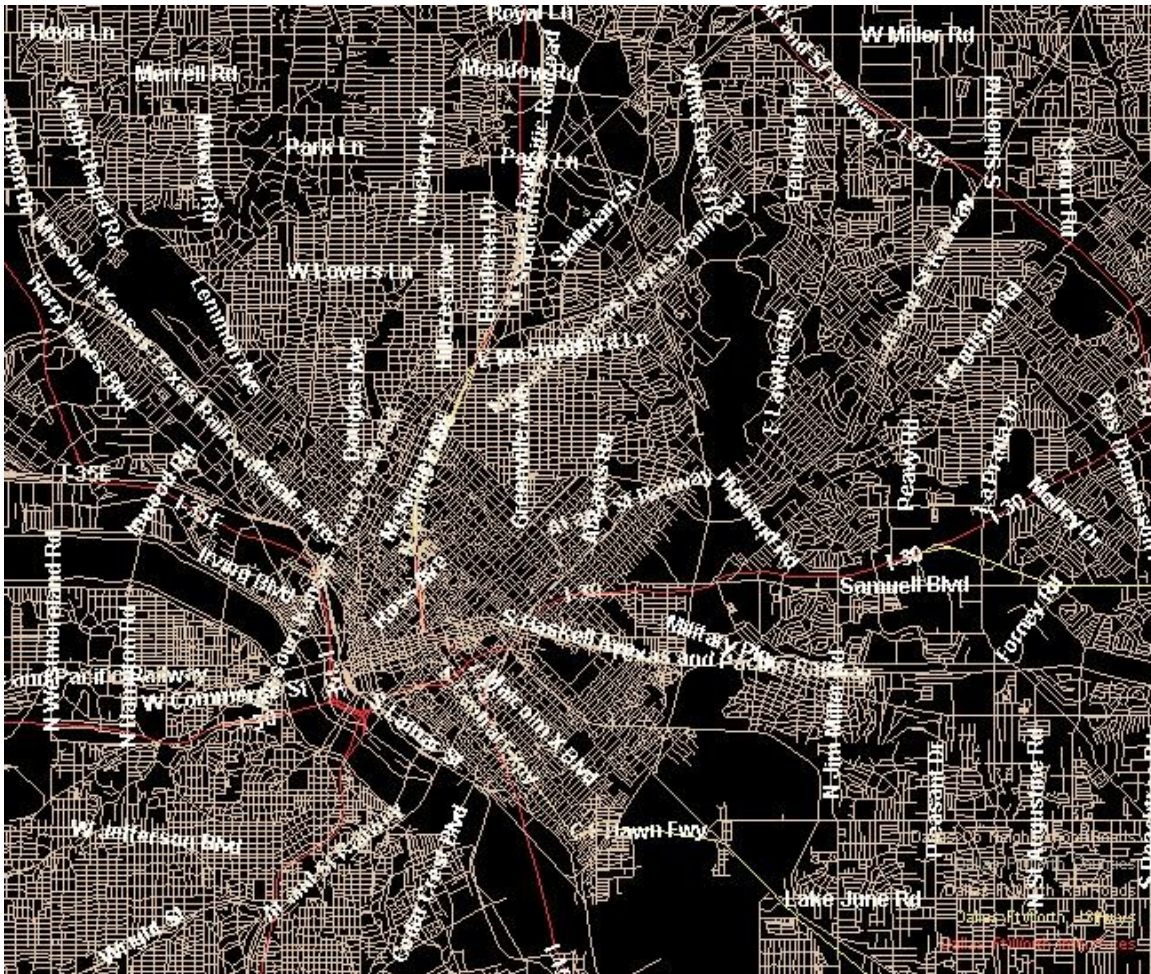
The user interface has been modified to make it more straight forward for an emergency manager to simply generate a toxic plume model run and display its output.

Systems Design Document

A prototype GTAS server/client system here in GSD and was used to test various software components, communications, security issues and architectural designs to generate the GTAS System Design document. The document has been posted to the web site. The document will be modified as deployments to the field offices require changes to security and communications concerns.

Project Schedule and Planning

GTAS Project Schedule and Planning documents have been generated and posted to the web site. The documents identify each task to be completed and their relative timelines. These are produced and maintained using Microsoft Project.



Risk Mitigation Plan

The Risk Mitigation Plan describes the potential technical risks associated with the development and deployment of GTAS servers and clients to Pilot field sites. While mitigation measures are described in the plan, the web site also displays a risk status function for each activity and deployment to the regions.

Test and Evaluation Plan

The Test and Evaluation Plan has been developed and posted to the web site. The document describes the testing procedures that will take place at the NWS WFOs and state and local governments participating in the Pilot. Also, objective and subjective evaluations will be conducted for both NWS forecasters and emergency managers and changes to the client will be made based on their feedback.

Western Region Deployment Discussions

In April discussions were held with NWS Western Region Headquarters to cover the change from deploying GTAS in Los Angeles to Seattle. The Seattle WFO has good

relationships with their state and local government emergency preparedness agencies and is more than willing to participate in the Pilot.

Local Weather Model Development

The high-resolution weather model that will be used to initialize the toxic plume model development is proceeding. This includes the nesting of the 2-km grid inside the 4-km grid for wind and stability data needed for plume propagation. The North American Model (NAM) is used outside the domain of the high-resolution data so that toxic plume displays can be generated over the entire state for each pilot. The high-resolution data is centered over those cities (Dallas/FT Worth for example) where the pilot will be conducted.

Common Alerting Protocol

The initial CAP v1.1 message development and integration has been completed. This gives the emergency manager a gui that allows them to make point-and-click selections needed to generate CAP messages for accurate and timely dissemination to various broadcast systems. An example display of the gui is shown below. Testing of the software continues.

